



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Classification of Used Antifreeze

Office of Land Quality

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The purpose of this analysis is to clarify the circumstances under which used ethylene glycol (antifreeze) is regulated under the Hazardous Waste Rules, Indiana Rule 329 IAC 3.1 (40 CFR 261-268).

Unless specifically exempted, any spent material (waste) that is destined for disposal, or that must be recycled prior to reuse, is potentially subject to the management standards of the Hazardous Waste Rules. A waste is hazardous if the waste is specifically listed in the Rules, or if the wastes meet one of four characteristics: ignitability, corrosivity, reactivity, or toxic characteristics (TC). Wastes that are hazardous are subject to the management standards under the Rules if the company (generator) generates 220 pounds or more of hazardous waste, or 2.2 pounds of acute hazardous waste in a month. When calculating the quantity determination, all hazardous waste generated at a particular location must be included.

Used antifreeze is not a "listed" hazardous waste, but it has been identified by several organizations as a possible hazardous waste because of contamination either from use or because other wastes have been mixed with the antifreeze after it has been removed from equipment. For example, many degreasers and cleaners such as engine cleaners, carburetor and fuel injection cleaners, mineral spirits and other part degreasers are a hazardous waste when disposed. If these types of cleaners are mixed with used antifreeze, the antifreeze may then also become a hazardous waste. Each generator is responsible for making a hazardous waste determination and can make the determination based on either analytical knowledge (testing results) or knowledge of the waste and how it was generated and managed. Acceptable knowledge may include existing published or documented waste analysis data or studies, process knowledge, MSDS information, management practice knowledge, and other relevant information. IDEM is aware of studies that have indicated that, when properly managed and kept segregated from other wastes, used antifreeze collected directly from passenger vehicles and light trucks does not exhibit the characteristics of a RCRA hazardous waste. The studies did not address heavy trucks or heavy equipment or machinery. Again, a waste determination must be made by each generator, taking into consideration specific management practices and types of vehicles and equipment serviced.

If it is determined that the used antifreeze is hazardous, there are basically three options available to properly and legally manage it. Each option has advantages and disadvantages which should be carefully weighed.

RECYCLING

The Indiana Department of Environmental Management encourages generators to recycle their wastes when possible. Used antifreeze can be recycled by various methods and returned to use as antifreeze. If this option is selected, and the antifreeze is being managed as a hazardous waste, the actual recycling process is exempt from regulation under the Hazardous Waste Rules; however, management of hazardous waste antifreeze before recycling, and the residue after recycling, is subject to the hazardous waste rules. However, it should be kept in mind that the "quantity determination" (as referenced above) must be made on the hazardous antifreeze prior to recycling, not on the residue after recycling.

Therefore, reducing the amount of waste that must be disposed of through recycling will not cause the generator to fall into a non-regulated category (called a conditionally exempt small quantity generator). While many generators mix used antifreeze with used oil, IDEM recommends that used oil and used antifreeze be managed separately in segregated containers. **MIXING USED ANTIFREEZE WHICH IS A HAZARDOUS WASTE WITH USED OIL CAUSES THE ENTIRE MIXTURE TO BECOME SUBJECT TO HAZARDOUS WASTE MANAGEMENT STANDARDS.** For more detailed information on used oil management standards, please see the Used Oil guidance available from IDEM.

DISCHARGE TO POTW

Recognizing that discharges to public owned treatment works (POTW) were already regulated under the Federal Clean Water Act, the U.S. EPA excluded from hazardous waste regulation those hazardous wastes that were discharged to POTW's. Therefore, the discharge of hazardous wastes to POTW's is not regulated under either the Indiana or the Federal Hazardous Waste Rules. Such discharges are subject to pretreatment and discharge standards regulated by your local municipality. Some municipalities prohibit the discharge of antifreeze to their POTW's, while others allow such discharges. It is the generator's responsibility to assure that the local POTW standards are met. Any storage or other management of hazardous waste antifreeze prior to pretreatment and discharge is subject to the hazardous waste management standards, provided the generator is generating a regulated quantity of hazardous waste (as previously defined). (However, tanks which are part of a wastewater pretreatment system are also excluded from hazardous waste regulation). **ANTIFREEZE OF ANY TYPE SHOULD NOT BE DISCHARGED TO ANY SEPTIC SYSTEM** (finger system, dry well, French drain, mound system, etc.).

TREATMENT AND DISPOSAL

Although disposal is the most costly and least preferred method of handling, used antifreeze can be transported to a hazardous waste treatment, storage and/or disposal facility for treatment and disposal as a hazardous waste. In addition to managing the antifreeze on site in compliance with the hazardous waste management standards, the generator would be responsible for properly packaging the waste in accordance with the U.S. Department of Transportation standards (49 CFR) and shipping it under a manifest to a permitted hazardous waste facility.

If a representative analysis or generator knowledge shows that the generator's used antifreeze is **nonhazardous**, it would not be subject to specific hazardous waste management standards; however, the antifreeze must be handled in a manner which would not threaten human health or the environment. Application to the soil is prohibited, unless it is disposed at a permitted MSWL landfill, and then only if specifically approved for such disposal. Discharge to a stream or body of water is in violation of the Federal Clean Water Act and Indiana standards unless conducted under a discharge (NPDES) permit. Discharges to a POTW are subject to pretreatment and discharge standards regulated by your local municipality, and should be considered only where such discharge is specifically approved. Again, antifreeze of any type should not be discharged to any septic system.

If you need additional information concerning the regulation of used antifreeze under the Hazardous Waste Rules, please contact staff of the Office of Land Quality, Compliance and Response Branch at 317-234-6923 or visit www.idem.IN.gov/4110.htm.